# MAGNEPULSE™ DMC

# Digital DC Industrial Lifting Magnet Control



Magnetek, the leader in crane and hoist motor control, offers the MagnePulse™ Digital Magnet Control for the operation of DC industrial lifting magnets. Built on Magnetek's proven OmniPulse DDC platform, this microprocessor based, solid-state, DC-to-DC control combines advanced safety and performance features to improve productivity and reliability in your facility.

#### ADVANCED PERFORMANCE

- Digital control of the magnet's demagnetizing current means the magnet cleans the load faster and more consistently, increasing throughput
- Exclusive OmniBeam™ feature allows the operator to enable any combination of up to four unique magnets to precisely match individual load requirements
- Stepped current allows you to program the drive to lift/clean a single slab or a stack of slabs, reducing cycles and improving throughput
- Power loss ride-through continues to energize the magnet to keep the control running and current flowing through the magnet when main power is lost

#### IMPROVED SAFETY AND PROTECTION

- MagnePulse DMC automatically removes magnet power during a fault event, preventing damage to the drive and magnet
- Open/short circuit detection automatically disables current to the magnet if a cable is cut, avoiding control and magnet damage while improving plant safety
- Over-temperature protection utilizes the magnet's resistance to determine its temperature, preventing magnet damage and increasing life expectancy
- Digitally control the rate of current change to prevent voltage spikes and minimize drop time
- Password protection stops unauthorized users from changing the control characteristics



- Reduced lifting current maintains a full load while saving energy, lengthening magnet life, and increasing average lift capacity
- Efficient use of energy reduces magnet heating up to 50%, reducing or eliminating the need for magnet change-outs
- Flexible control options include single-input, dual-input, stepped-input, analog or serial current references as well as a programmable input to maximize magnet and crane performance
- Twenty-five drive, magnet and control status monitors check magnet current, voltage, resistance, temperature, DC bus voltage, and control variables to simplify process optimization

#### ENHANCED PROGRAMMABILITY AND DIAGNOSTICS

- Comprehensive software provides superior flexibility and allows for quick parameter changes — software upgrades can be flashed from a PC
- Fully compatible with IMPULSE®•Link 4.1 Basic and IMPULSE•Link 4.1 Wireless
  Diagnostic System (WDS) allowing you to upload, download and monitor
  parameters using a hardwired or wireless link to your PC





# FLEXIBLE OPTIONS

MagnePulse DMC can be easily retrofitted into your current framework, using existing operator controls and connections. Magnetek can also provide a pre-engineered panel with all the components needed to provide complete AC or DC powered magnet control. Panel accessory options include E-stop, fan kits, and circuit breakers. MagnePulse DMC may also be added to a custom panel, designed and built to your exact specifications.

#### **SPECIFICATIONS**

# Continuous Current Rating

Current Range: 5 - 2000 Adc

Pre-Engineered Panels: 67, 133, 200

and 400 Adc

## Input Voltage

200 – 320 Vdc 230/460/575 Vac

### Inputs

8 Discrete 230 Vdc or 120 Vac

8 Discrete 24 Vdc

2 Analog 0-10 Vdc

#### Outputs

4 Discrete 24 Vdc

2 Discrete 230 Vdc or Form C Relay

1 Analog 0-10 Vdc

#### Communication

RS-232/RS-485 Mod-BUS RTU

## **Temperature**

- -10°C to 40°C (enclosed) at 60% duty cycle
- -10°C to 55°C with optional fan kits at 60% duty cycle

#### Altitude

1000 m maximum without derating

## Humidity

95% non-condensing



ENGINEERED AC PANEL



PRE-ENGINEERED DC PANEL

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